THE UNIVERSITY OF MEMPHIS | Center for Research in Educational Policy

VIRGINIA DEPARTMENT OF EDUCATION

Evaluation of 21st Century Community Learning Centers

2011-2012

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2011-2012
Executive Summary

The 21st Century Community Learning Centers (21st CCLC) grant program provides opportunities outside of the regular school day for academic enrichment to help students meet state and local performance standards in core academic subjects. This report summarizes the results of the Center for Research in Educational Policy's (CREP) evaluation of the 2011-2012 Virginia 21st CCLC programs. The purpose was to determine whether the federally-funded 21st CCLC programs were meeting Virginia's program objectives by: 1) improving student academic achievement in reading; 2) improving student academic achievement in mathematics; and 3) providing opportunities for parental education. An overview of the success of centers in achieving supplemental objectives is provided in Appendix A.

Results

Data were analyzed from three main sources: 1) an online annual local evaluation survey (ALERT); 2) the Profile and Performance Information Collection System (PPICS); and 3) scores for reading and mathematics from the Standards of Learning (SOL) assessments, Virginia Alternate Assessment Program (VAAP), Virginia Grade Level Alternative (VGLA), and Virginia Modified Achievement Standards Test (VMAST). It should be noted that in the Spring of 2012, all schools in Virginia took new, rigorous mathematics assessments that were based on the revised mathematics SOL approved by the Board of Education in 2009, which included new content and the increased rigor. The key results of the analyses are summarized below by evaluation question.

What is the nature of the Virginia 21st CCLC programs and level of participation by students?

Similar to prior years, in 2011-2012, schools operated the majority of centers, and most were open 6-15 hours per week. There were 3,897 paid and volunteer staff members across 146 centers. Most paid employees were school division teachers or nonteaching staff, while most volunteers were college and high school students or other community members. Students attending centers during 2011-2012 numbered 25,710, and almost half (42.9 percent) attended

regularly (30 days or more). Students served were in prekindergarten through grade 12, with the majority in grades 3-8. The majority of students served were White or African-American. Racial/ethnic groups were represented in centers as follows: White (40.6 percent), African-American (41.5 percent), and Hispanic (10.9 percent), Asian (2.7 percent), and American Indian (1.2 percent). Racial/ethnic information was not supplied for 3.1 percent of students served. Over half of all students served by 21st CCLC during this period were at an economic disadvantage (58.7 percent). Students with limited English proficiency (LEP) comprised 7.7 percent of the total program enrollment, and students with special needs or disabilities represented 9.4 percent of all students served.

In comparison, the total Commonwealth student membership (http://bi.vita.virginia.gov/doe_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership) as of September 30, 2011, was as follows: White (53.6 percent), African-American (23.7 percent), Hispanic (11.9 percent), Asian (6.0 percent), Two or More Races (4.3 percent), American Indian/ Alaska Native (.3 percent), and Native Hawaiian/Pacific Islander (.1 percent). Approximately 39.7 percent of all students across the Commonwealth were eligible for free or reduced price lunch for the 2011-2012 school year (http://www.doe.virginia.gov/support/nutrition/statistics/free_reduced_eligibility/2011-2012/divisions/frpe_div_report_sy2011-12.pdf). Across the Commonwealth, students with LEP constituted 9.5 percent of all students enrolled in 2011-2012, and students with special needs or disabilities comprised 12.5 percent of total enrollment during this period.

To what degree did centers meet Virginia's objectives for the program?

For Objectives 1 and 2, four sets of Hierarchical Linear Models (HLM) and Hierarchical Generalized Linear Models (HGLM) analyses (eight total analyses) were conducted separately by subject (reading or mathematics) using two different inferential (i.e., statistical) methods for students in grades 3-8 who had two years of assessment data available (2010-2011 and 2011-2012). Analyses of the impacts of center-level factors (e.g., the number of hours centers were open) on student achievement only included students who participated in 21st CCLC for 30 or more days (i.e., no control students were included). For analyses of the impact of program participation on student achievement, students who participated in 21st CCLC for 30 or more

days were matched based on several demographic variables and compared to similar students in the control group who were eligible for, but did not participate in the program.

Two sets of inferential analyses evaluated proficiency levels (coded as either "pass" or "fail") on the SOL, VAAP, VGLA, or VMAST tests in reading and mathematics. However, in an effort to evaluate the more subtle or incremental improvements in student outcomes not captured by the first two sets of categorical analyses, which only looked at broad changes in student proficiency, two additional sets of inferential analyses were carried out for students' standardized scaled scores (z-scores) on the traditional statewide assessment (i.e., SOL) only.

Using proficiency levels on the SOL, VAAP, VGLA, and VMAST assessments (based on the percentage scoring Proficient or Advanced) and mean (i.e., average) scaled scores on SOL assessments only, separate descriptive (noninferential) analyses were conducted for 21st CCLC participants (i.e., those with 30 or more days of attendance) and nonparticipants (i.e., eligible students with zero days of attendance) in grade three in 2011-2012 who had no prior-year test data available. These analyses also examined differences in reading and mathematics achievement between 21st CCLC participants and all Commonwealth third-grade students in the 2010-2011 and 2011-2012 school years.

Comparisons between grade three 21st CCLC participants and nonparticipants were also conducted for the following subgroups where common data were available: gender, race, economic disadvantage status, students with disabilities status, and LEP status. Results from the grade-three-only analyses must be treated as informational only, and not as evaluative because it was not possible to incorporate data necessary to control for these students' prior-year achievement, which is known to be a significant predictor of future year achievement. In addition, there was no student-level matching between third-grade 21st CCLC participants and controls as was done in the statistical analyses. Furthermore, since the analyses were descriptive only, and also compared different cohorts of students between years, differences between groups and years were not tested for statistical significance.

The key results of the analyses are summarized below by evaluation question.

Objective 1: Improve Student Academic Achievement in Reading

For students in grades 3-8, the proficiency and standardized SOL scaled score analyses showed that there was no statistically significant impact of 21st CCLC participation ("Yes" or

"No") on statewide reading assessments. Additionally, the effect size for the proficiency analyses (Cox Index effect size (CIES) = 0.07) would not be considered substantively important based on What Works Clearinghouse (WWC) guidelines (≥ +/- 0.25). In addition to 21st CCLC participation not being statistically significant for the standardized SOL scaled score analysis, the effect size (g = 0.00) was also not substantively important. The number of days of participation in 21st CCLC programs was also not a statistically significant predictor of either reading proficiency or standardized scaled score achievement. In addition, there were no statistically significant differences in either reading proficiency or standardized SOL reading scaled scores between 21st CCLC participants and controls for any of the subgroups evaluated (i.e., by special education, LEP, or economically disadvantaged status), and none of the associated effect sizes were substantively important. For students in grade three who did not have prior-year test scores available, the percentage of 21st CCLC participants scoring Proficient or Advanced was lower overall than both nonparticipants and the Commonwealth, as well as all but two subgroups in 2011-2012. In addition, grade three 21st CCLC participants had a lower mean SOL scaled score in 2011-2012 than nonparticipants overall and in all but two subgroups evaluated.

Objective 2: Improve Student Academic Achievement in Mathematics

For students in grades 3-8, the proficiency analysis showed a statistically significant negative impact of 21st CCLC participation ("Yes" or "No") on statewide mathematics assessments. However, while statistically significant, the effect size for the proficiency analyses (CIES = -0.17) would not be considered substantively important based on WWC guidelines (≥ +/- 0.25). Additionally, the number of days of participation in 21st CCLC was statistically significant and positive for mathematics proficiency, but the effect was small. Meanwhile, the SOL scaled score analysis did not reveal a statistically significant impact of 21st CCLC participation ("Yes" or "No") on statewide mathematics assessments, and the effect size (g = -0.03) was not substantively important. There were statistically significant differences in mathematics proficiency favoring 21st CCLC participants over controls for all of the subgroups evaluated (i.e., by special education, LEP, or economically disadvantaged status), with Cox Index effect sizes ranging from 0.15 to 0.92. Meanwhile, for students who were not identified as economically disadvantaged, control students had statistically significantly higher standardized SOL scaled scores, but the effect size (g = -0.10) was not substantively important. For students

in grade three who did not have prior-year test scores available, the overall percentage of 21st CCLC participants scoring Proficient or Advanced was lower than both nonparticipants and the Commonwealth in 2011-2012 and for five subgroups, but was higher than both groups for one subgroup examined. Participants in 21st CCLC also had a lower mean SOL scaled score overall and in seven subgroups than nonparticipants in 2011-2012 but also had a higher mean for seven subgroups evaluated.

Objective 3: Provide Opportunities for Parent Education

As required by the 21st CCLC grant, centers offered General Education Development (GED) certificate programs, computer instruction, parenting skills classes, parent/child activities, and/or career development activities for parents. Over three-quarters of centers offering opportunities for parent/child interaction in academic activities reported having met their internally established subobjectives. About two-thirds of centers offering computer skills instruction and a similar proportion of centers offering parent training reported having met their internally established subobjectives. Half of centers offering GED certificate programs and almost half of centers offering career development activities reported having met their internally established subobjectives.

In what ways do attendance at a 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?

This section of the evaluation includes the results of statistical analyses of associations between various categories of center-level data and reading and mathematics outcomes of students in grades 3-8 with two years of assessment data available. Only 21st CCLC students who had a minimum of 30 days of attendance were included. These analyses provide information that may be useful to program leaders and are summarized below.

Center-level results from analysis of reading outcomes

The number of paid school-day teachers at 21st CCLC centers had a small, but statistically significant and positive impact on both reading proficiency level and standardized SOL reading scaled scores, with an increase in the number of school-day teachers being associated with higher odds of being proficient and higher standardized SOL scaled scores. The total number of hours that centers were open, the total hours of activities, the number of unique

activities, the percent of activities that had an academic focus, and the number of days attended did not have a statistically significant impact on either reading proficiency level or standardized SOL reading scores in 2011-2012.

Center-level results for mathematics

The impact of the number of hours the center was open was statistically significant and positive for both mathematics proficiency level and standardized SOL mathematics scaled scores, but the magnitude of the effects was very small. The number of paid school-day teachers at the center was statistically significant and positive for mathematics proficiency, but with a small effect. The percent of center activities that were academically oriented had a small, but statistically significant and negative impact on both mathematics proficiency level and standardized SOL scaled scores. Neither the total hours of activities, total number of unique activities, nor number of days of participation in 21st CCLC had a statistically significant impact on either mathematics proficiency level or standardized SOL mathematics scaled score in 2011-2012.

What "promising practices" and challenges were identified by centers regarding the achievement of required objectives?

Grantees were asked to elaborate upon their centers' objectives that were met and the activities or promising practices that appeared to be most effective in helping them to meet these objectives. Major themes appearing in grantees' responses included the following: providing time for academic assistance in core content areas, providing a variety of engaging enrichment activities, maintaining strong relationships with families through services and communication, providing an environment conducive to learning, supporting high-quality afterschool staff that maintains strong linkages with the school-day staff and curricula, and maintaining strong relationships and partnerships with community members.

Grantees were asked to reflect upon their centers' objectives that were not met or showed mixed results and to identify challenges that might have been associated with the lower results. Major challenges appearing in grantees' responses included the following: conditions within families and the local community; program alignment and planning; staffing, scheduling, and other logistics of program implementation; academic, behavioral, and other student factors; and communication with stakeholders.

Conclusions

Based on the statistical analyses for grades 3-8 that included two years of test data, participation in the 21st CCLC programs was not a statistically significant predictor of reading achievement (either proficiency or standardized SOL scaled scores) or standardized SOL scaled score achievement in mathematics. Although participation in 21st CCLC programs was a statistically significant negative predictor for mathematics proficiency level, the effect was small. In addition, an increase in the number of days of participation in 21st CCLC programs had a small, yet statistically significant and positive impact on mathematics proficiency levels. It should be noted that in the spring of 2012, students in Virginia took new rigorous mathematics assessments that were based on the revised mathematics SOL assessments approved by the Board of Education in 2009 which included new content and the increased rigor of the 2009 standards, and which could have impacted the outcomes in mathematics.

The results suggest that more paid school-day teachers had small, yet statistically significant and positive impacts on reading proficiency and standardized SOL scaled score outcomes and mathematics proficiency level outcomes. Also, an increase in the number of hours a center was open had a small, but statistically significant and positive impact on mathematics proficiency and standardized SOL scaled score outcomes, while the percent of center activities that were identified as academic had a small, but statistically significant and negative impact on mathematics proficiency and standardized SOL scaled score outcomes. It should be noted that the number of academic activities was created by evaluating the name of each activity to determine if the focus was academic or something other than academic. The best effort was made to categorize the activity based on the activity name, but the categories were not confirmed with the centers. Readers should note that due to differences in the statistical methodology used for the achievement analyses for the current report, results from the statistical analyses should not be compared to statistical outcomes from previous years.

Results of the descriptive analyses of outcomes for students in grade three who did not have prior-year test scores available showed that for proficiency outcomes, the percentage of 21st CCLC participants scoring Proficient or Advanced, overall, was lower than nonparticipants and the Commonwealth in 2011-2012 in both reading and mathematics. In terms of SOL scaled score outcomes in 2011-2012, 21st CCLC participants overall had a lower mean than nonparticipants in both reading and mathematics.

Evaluation of 21st Century Community Learning Centers
2011-2012
Introduction and Overview

The 21st Century Community Learning Centers (21st CCLC) grant program was established by Congress as part of the *Elementary and Secondary Education Act of 1965* (ESEA). It was reauthorized by Congress under the *No Child Left Behind Act of 2001* (NCLB). The purposes of the 21st CCLC program are as follows:

- To provide opportunities outside of the regular school day for academic enrichment, including tutorial services to help students meet state and local performance standards in core academic subjects.
- To offer students a broad array of services, programs, and activities to complement academics such as drug and violence prevention; counseling programs; art, music and recreation programs; technology education; and character education.
- To offer families of students served by community learning centers opportunities for literacy and related educational development.

In 2011-2012, the Virginia Department of Education (VDOE) provided 21st CCLC grant funds to 104 grantees that operated a total of 146 centers. The grantees provided academic and enrichment programs to students before and/or after school hours as well as during the summer at some centers. The grant program also supported grantee collaboration with parents and community partners.

Evaluation Objectives and Measures

The VDOE contracted with the Center for Research in Educational Policy (CREP) at The University of Memphis to conduct a statewide evaluation of the 21st CCLC program to meet federal requirements and to assess the extent to which local grantees met the defined programmatic objectives. The defined objectives were as follows:

Objective 1: Improve student academic achievement in reading;

Objective 2: Improve student academic achievement in mathematics; and

Objective 3: Provide opportunities for parental education.

The evaluation was structured around the following questions:

- What is the nature of the Virginia 21st CCLC grant program and level of participation by students?
- To what degree did centers meet Virginia's objectives for the program?
- In what ways do attendance at a 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?
- What "promising practices" and challenges regarding the achievement of required objectives were identified by centers?

All grantees and their respective centers in operation in 2011-2012 were asked to participate in the evaluation. A detailed accounting of the number of students and centers originally available and subsequently included and the rationale for inclusion or exclusion in the analysis are provided in a supplemental technical report that can be requested from the VDOE.

Three main sources of data were used in the evaluation:

1. Two years (2010-2011 and 2011-2012) of Standards of Learning (SOL), Virginia Alternate Assessment Program (VAAP), Virginia Grade Level Alternative (VGLA), and Virginia Modified Achievement Standards Test (VMAST) proficiency and scaled assessment scores in reading and mathematics for students in grades 3-8. In addition to the assessment scores, data regarding gender; grade; ethnicity; limited English proficiency (LEP) status and proficiency level; disability status and primary disability code; economic disadvantage status; and days of participation in the 21st CCLC program also will be included. It should be noted that LEP students at the lowest levels of English proficiency and students with disabilities are permitted to participate in approved alternative assessments. The VAAP, VGLA, and VMAST alternative assessment data will be included in the analysis of proficiency-level outcomes, but only the SOL assessment will be used in the analysis of scaled score outcomes.

2. The Profile and Performance Information Collection System (PPICS) is a national Web-based data collection system that contains (a) descriptive data about grantees and their 21st CCLC program and (b) self-reported progress toward meeting performance indicators. Grantees submit information to this system at designated time periods each year.

3. Annual Local Evaluation Report Template (ALERT) is an online survey designed to supplement PPICS for this evaluation. The tool gathers additional data regarding center

activities and outcomes. Each grantee is required to submit the ALERT for each center after a full year of program implementation.

The Virginia Department of Education requested that grantees submit the ALERT for their centers by July 20, 2012. The findings in this report reflect the full complement of centers reporting for the 2011-2012 program year (100 percent). The ALERT reports contained both quantitative and qualitative data for analysis. PPICS reports were available for 146 centers, 132 of which met the requirements for also completing the ALERT. PPICS data within the Annual Progress Report categories of operation, objectives, activities, student behavior, and partnerships were analyzed for all grantees. Student-level SOL, VAAP, and VGLA assessment data from the 2010-2011 and 2011-2012 academic years were provided to CREP by the VDOE. The specific data sources are shown in Table 1 for each evaluation question.

Table 1. Summary of Instruments and Data Sources by Evaluation Question

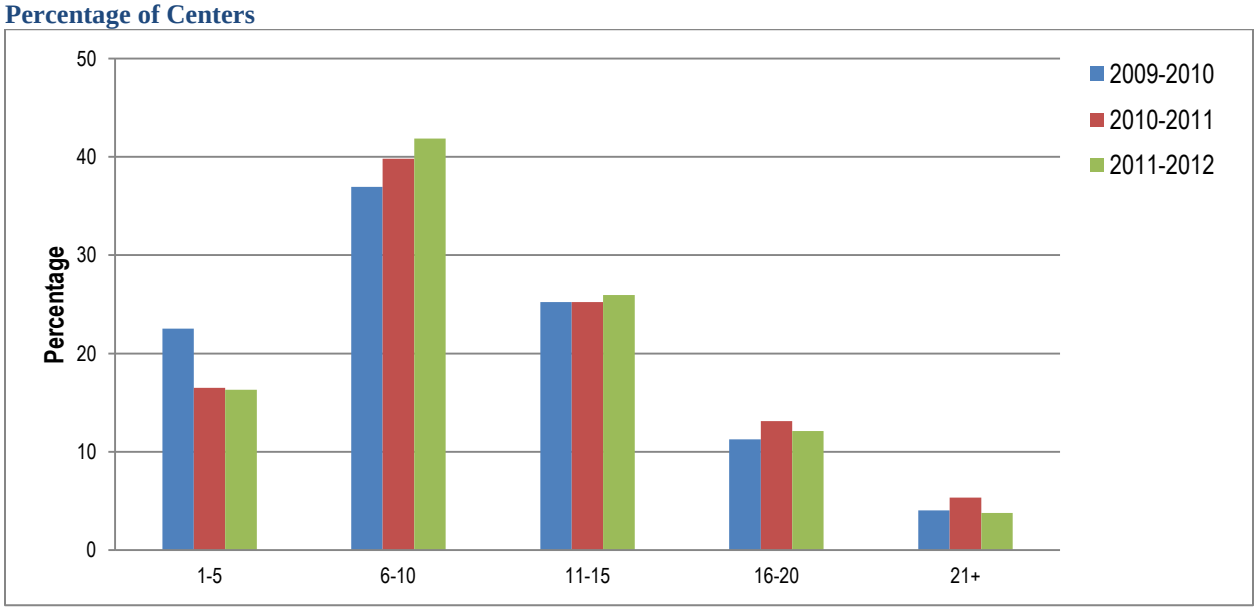
Evaluation Question	Data Sources	Percentage of Active Centers Represented
What is the nature of the 21st CCLC programs and level of participation by students?	ALERT PPICS demographic and attendance data	100
To what degree did centers meet their objectives?	PPICS APR data ALERT Virginia SOL test scores in reading and mathematics	100
In what ways do attendance at a 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?	PPICS data Virginia SOL test scores in reading and mathematics	100
What "promising practices" and challenges regarding the achievement of required objectives were identified by centers?	ALERT	100

Center Characteristics

Operations

Among centers, 86.9 percent were operated by schools. Others were operated by community centers (6.6 percent); nationally affiliated nonprofit agencies (3.3 percent); and other agencies (units of city or county government, regional/intermediate education agencies, health-based organizations, libraries, park/recreation districts, bureaus of Indian affairs, or private schools; 2.5 percent). Slightly less than one percent of centers were operated by faith-based organizations, and no centers were operated by charter schools, colleges or universities, or for-profit entities. Percentages reported for the 2011-2012 school year were similar to those reported in PPICS for the 2009-2010 and 2010-2011 school years. Centers varied in their structure, most notably in the number of hours of operation per week (see Figure 1). These percentages are also similar to those reported for the previous year.

Figure 1. Hours of Operation per Week during the 2009-2010, 2010-2011, and 2011-2012 School Years by Percentage of Centers



Almost three-quarters of reporting centers (65.9 percent) were open 6-15 hours per week during the 2011-2012 year, with the highest proportion (41.8 percent) offering 6-10 hours of services per week.

Staffing Patterns

Overall, in 2011-2012, the composition of paid staff generally continued the trends seen in prior years. The staffing patterns across centers are displayed in Figure 2 and Figure 3. Based on available PPICS data, there were 3,897 paid and volunteer staff members across the centers during the 2011-2012 school year. Of these staff members, the majority were paid (70.3 percent). Most paid employees were school division teachers (61.2 percent) or nonteaching staff (10.6 percent). Few paid employees were parents (.3 percent), college or high school students (5.6 percent), or other community members (1.7 percent). College and high school students were the most prevalent type of unpaid volunteers (46.1 percent), followed by other community members (20.8 percent), and then parents (11.8 percent).

Figure 2. Paid Staff in 21st CCLC across Virginia

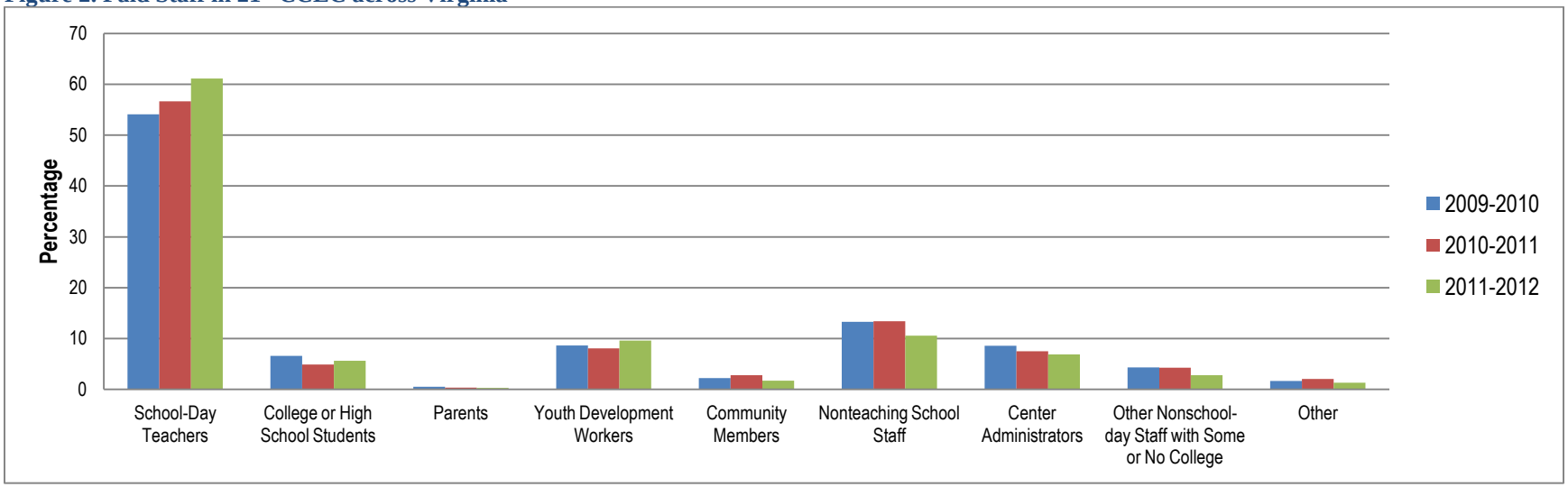
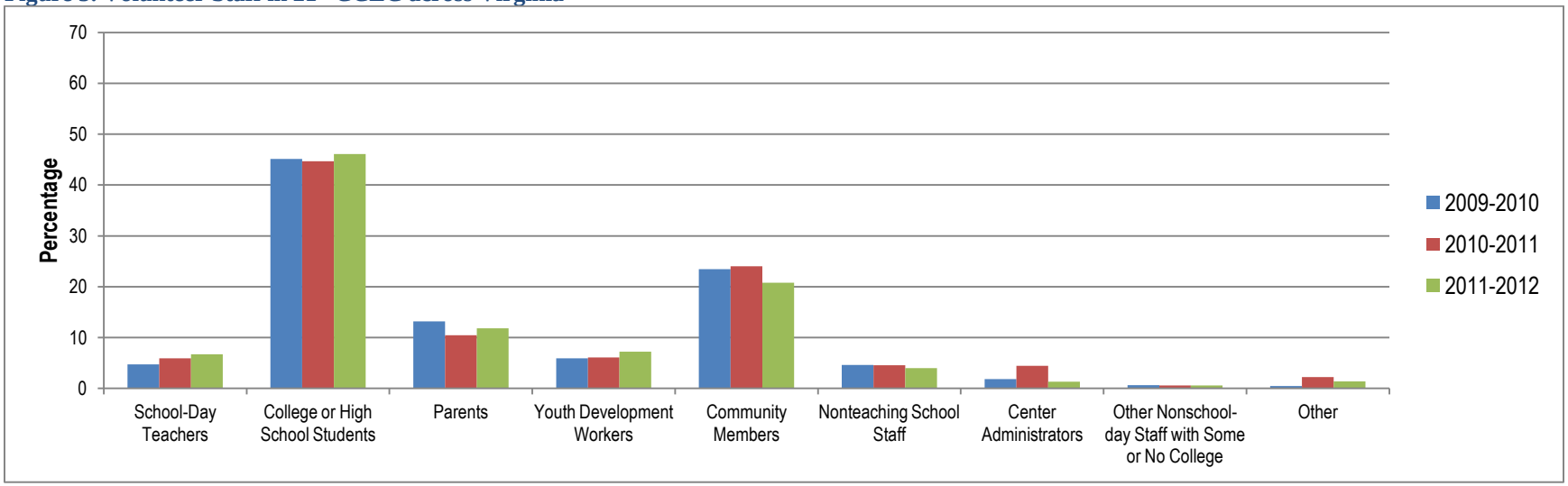


Figure 3. Volunteer Staff in 21st CCLC across Virginia



Student Participation and Attendance

According to available PPICS data, a total of 25,710 students were served in 2011-2012, with 11,027 students (42.9 percent) attending regularly (30 days or more). About two-thirds of all students served and about three-quarters of regular attendees were in grades 3-8 (see Figure 4 and Figure 5). In general, percentages of both middle and high school students served and of middle school regular attendees continued to rise, while those of elementary school students continued to decline.

In comparing all student attendees reported in 2010-2011 versus those reported in 2011-2012, there was an increase in the proportion of Hispanic student attendees in 2011-2012 (10.9 percent versus 8.3 percent), while there was a slight decrease in the proportion of African-American student attendees (41.5 percent versus 43.7 percent) and the percentage of White student attendees remained comparable to the previous year (40.6 percent; versus 40.8 percent reported in 2010-2011). Student attendees identified as being at an economic disadvantage comprised 58.4 percent (comparable to 58.7 percent reported in 2010-2011). There was a slight increase in the percentage of students with disabilities in 2011-2012, as compared to the previous year (9.4 percent; versus 8.9 percent reported in 2010-2011). Students with limited English proficiency (LEP) comprised 7.7 percent of the total group (a slight increase from 7.2 percent reported in 2010-2011). Also, similar to prior-year reports, approximately equal numbers of boys and girls participated in the programs (50.0 percent boys, 49.8 percent girls) with approximately equal regularity of attendance.

The total Commonwealth student membership (http://bi.vita.virginia.gov/doe_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership) as of September 30, 2011, was as follows: White (53.6 percent), African-American (23.7 percent), Hispanic (11.9 percent), Asian (6 percent), Two or More Races (4.3 percent), American Indian/ Alaska Native (.3 percent), and Native Hawaiian/Pacific Islander (.1 percent). Approximately 39.7 percent of all students across the Commonwealth were eligible for free or reduced price lunch for the 2011-2012 school year (http://www.doe.virginia.gov/support/nutrition/statistics/free_reduced_eligibility/2011-2012/divisions/frpe_div_report_sy2011-12.pdf). Across the Commonwealth, LEP students constituted 9.5 percent of all students enrolled in 2011-2012, and students with special needs or disabilities comprised 12.5 percent of total enrollment during this period.

Figure 4. Percent of All Student Attendees in 21st CCLC by Grade Level for 2009-2010, 2010-2011, and 2011-2012

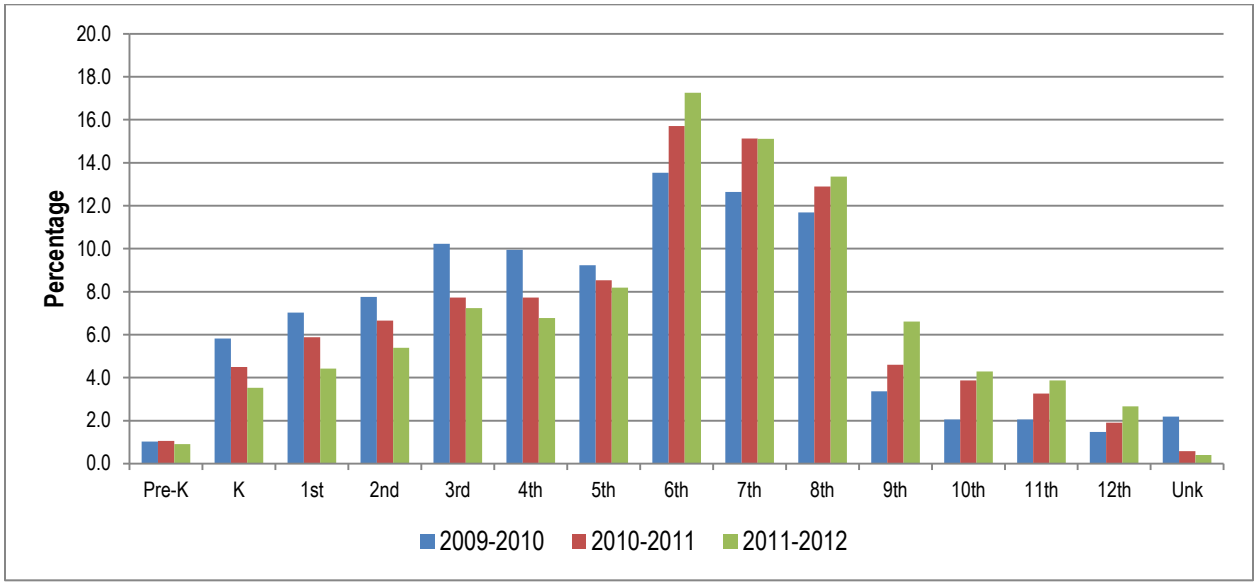
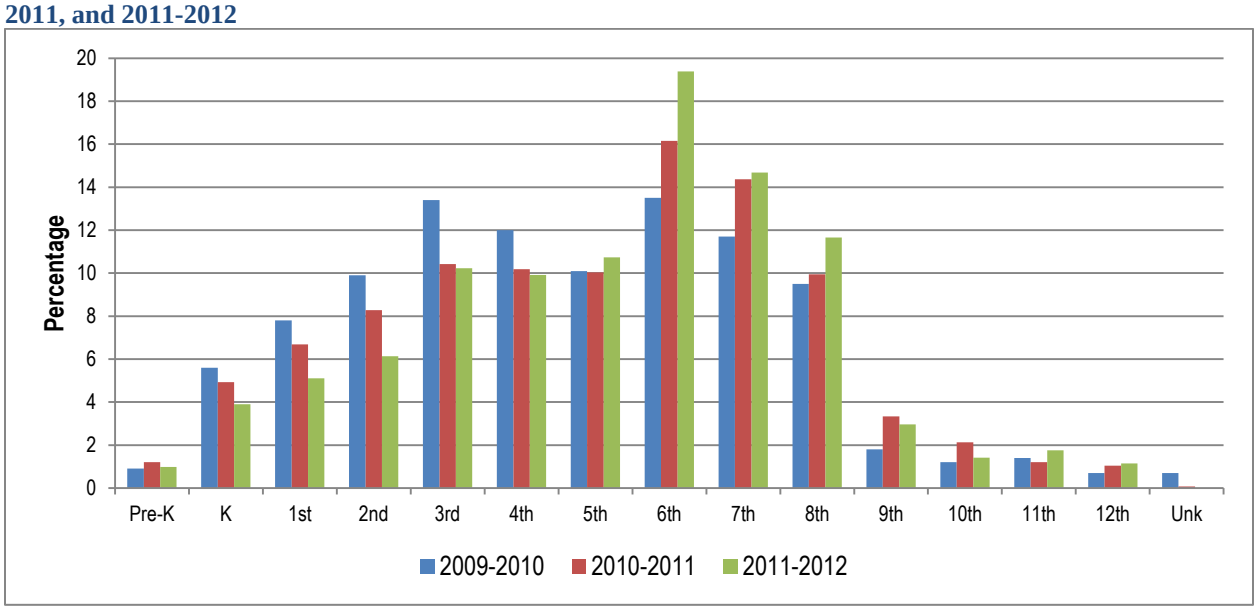


Figure 5. Percent of Regular Attendees (at least 30 days) in 21st CCLC by Grade Level for 2009-2010, 2010-2011, and 2011-2012



Methods

The results for Objectives 1 and 2 were examined using Hierarchical Linear Models (HLM) and Hierarchical Generalized Linear Models (HGLM) for students in grades 3-8 with two years of test data available. Analyses of the impacts of center-level factors (e.g., the number of hours centers were open) on student achievement only included students who participated in

21st CCLC for 30 or more days (i.e., no control students were included). Additional HLM and HGLM models were examined by comparing matched pairs of students in the treatment group who attended 21st CCLC programs for 30 or more days and students in a control group who were eligible to attend 21st CCLC programs, but had zero days of attendance.

Four sets of analyses (eight analyses total), two for proficiency-level, and two for standardized SOL scaled scores were conducted separately by subject area (reading and mathematics). The first two sets of analyses assessed proficiency-level performance in 2011-2012 based on all available test data (i.e., SOL, VAAP, VGLA, and VMAST) using HGLM. For these analyses, the proficiency level on the SOL, VAAP, VGLA, or VMAST test for the 2010-2011 and 2011-2012 school years was treated as either "pass" or proficient (based on scoring "Proficient" or "Advanced Proficient"), or "fail" (based on scoring "Basic" or "Below Basic"). This method permitted the inclusion of all students, regardless of the type of assessment taken to participate in Virginia's statewide testing program, as proficiency level is a common measure across all of the different test types, grade levels, and years. Center-level variables (e.g., total hours open) were included in specified analyses to examine the impacts of these variables on student proficiency. By including all students in the analyses, this method offers the most appropriate tool to analyze outcomes for specific student subgroups.

The first proficiency analyses investigated the relationship of 21st CCLC participation on student achievement. Matched 21st CCLC students who participated for at least 30 days and control students (who were eligible, but did not participate in 21st CCLC) were included (n=8,858 reading, n=8,882 mathematics). Additionally, the effects of 21st CCLC participation by three subgroups based on special education status, LEP status, and economically disadvantaged status were examined. The second proficiency analyses investigated the relationship of center-level characteristics on student achievement. Only 21st CCLC students who participated for at least 30 days were included in these analyses (n=4,429 reading, n=4,441 mathematics).

While the proficiency analyses were designed to capture broad impacts on student proficiency associated with participation in the 21st CCLC programs, these analyses are not designed to measure incremental differences in student achievement or between treatment and control students that may occur within proficiency levels. For example, students who initially scored at the low end of proficiency, but moved to the high end of proficiency would have demonstrated no measurable change in the proficiency analyses because their overall proficiency

level (i.e., Proficient or Not Proficient) had not changed, even though their academic achievement may have increased from one year to the next. Therefore, the next two sets of analyses focused on the standardized scaled scores of students who took the SOL assessments in both 2010-2011 and 2011-2012 using HLM. These analyses were intended to be more sensitive to these types of changes that occur across the scaled score range, regardless of students' proficiency levels. The standardized SOL scaled score analyses included the same student-level and center-level variables used in the proficiency level analyses, and in terms of student subgroups, looked at the effects of 21st CCLC participation by economically disadvantaged status only.

The first set of SOL analyses investigated the relationship between 21st CCLC participation and student achievement for matched 21st CCLC and control students (n=8,330 reading, n=8,442 mathematics). Additionally, the effect of 21st CCLC participation by economically disadvantaged status was examined. The second set of SOL analyses investigated the relationship of center-level characteristics on student achievement for 21st CCLC students who participated for at least 30 days (n=4,165 reading, n=4,221 mathematics). It is important to note that while the scaled score analyses are potentially more sensitive to changes attributable to program participation, they also have limitations. In particular, because students who participate in alternative assessments are not included, this type of analysis should not be used to evaluate the impact of participation in the 21st CCLC program on students with disabilities and LEP students, as the SOL assessment outcomes for these two subgroups would not be representative of the total population of students with disabilities and LEP students.

Furthermore, as Virginia's tests are not vertically scaled, meaning that scores from different tests, grade levels, and years are not directly comparable in terms of measuring the amount of learning, the test-level[1] test data were converted to standardized scores (i.e., z-scores) prior to analysis. As a result, the data were placed onto a single, comparable scale while retaining the shape of the distribution of the original scores. The conversion also allowed different grade levels to be combined so that the effectiveness of centers could be evaluated based on all students served. While this transformation is the best available approach to measuring achievement using scaled scores from multiple grades in Virginia at this time, the

[1] The test level is the achievement test level independent from grade level. Therefore, students' scores were standardized based on the test level of the test they took, not the grade level in which they were enrolled.

conversion has limitations, as z-scores only provide a measure of achievement relative to the Commonwealth average, and are not a measure of absolute growth or change from year to year. Thus, the full implications of this conversion applied to Virginia's criterion-referenced tests are not clear.

In addition, the findings can only be used to evaluate the performance of all centers in the Commonwealth as a group, and not the performance of any specific center, as for both the proficiency-level analyses and the analyses of standardized SOL assessment scores, the results were aggregated across all centers rather than evaluated center-by-center. Details regarding the samples included, a complete listing of the variables used in the student matching process, and a description of the treatment-control student matching process, data sources, methodology, and scaled score standardization for the statistical analyses can be found in the Supplemental Technical Report, which is available upon request from the VDOE.

Third-grade Only

As most students in third-grade have no prior-year test data available, it was not feasible to apply inferential statistics to these data because any statistically significant differences between 21st CCLC participants (i.e., those with 30 or more days of attendance) and nonparticipants (i.e., eligible students with zero days of attendance) may not be the result of 21st CCLCs. Rather, differences could be the result of differences in prior ability as it was not possible to either: 1) determine if the participant and nonparticipant groups were similar on prior-year achievement; or 2) adjust 2011-2012 outcomes based on prior-year achievement for the third-grade students.

Consequently, separate descriptive (noninferential) analyses were conducted for 21st CCLC participants and nonparticipants in grade three in 2011-2012 who had no prior-year test data available. The analyses used the proficiency levels on the SOL, VAAP, VGLA, and VMAST assessments (based on the percentage scoring Proficient or Advanced) and mean (i.e., average) scaled scores on SOL assessment tests. For these analyses, it would be more appropriate to use the findings to better understand whether the program is serving students with an identified need (i.e., serving students on average who are the lowest achievers) vs. interpreting the findings as an evaluation of the effectiveness of the 21st CCLC program. Therefore, the outcomes should be used to learn more about the population being served rather than evaluating

their outcomes. These analyses examined differences in reading and mathematics achievement between the following:

(1) 21st CCLC participant and nonparticipant third-grade students;

(2) 21st CCLC participants and all Commonwealth third-grade students (where similar data were available).

In addition to the comparisons between all students in the 21st CCLC participant and nonparticipant groups, as well the Commonwealth, comparisons between these three groups were also conducted by the following subgroups where common data were available: gender, race, economic disadvantage status, disability status, and LEP status. The results for the grade-three-only analyses must be viewed as quite limited, as they are descriptive only; thus, it is possible that differences in achievement between participants and nonparticipants could be due to differences in areas such as prior ability or motivation, or due to chance, and may not be related to participation in the 21st CCLC program itself. Comparison data for the Commonwealth were based upon the 2010-2011 and 2011-2012 State Report Card data from the VDOE's Web site at the following link: https://p1pe.doe.virginia.gov/reportcard/.

Results

The results of the evaluation reflect the extent to which the centers met required programmatic objectives. Grantees were required to address the following three objectives: 1) improve student achievement in reading; 2) improve student achievement in mathematics; and 3) provide opportunities for parental education. Each center could also implement additional objectives as long as they were aligned with the purposes of the federal 21st CCLC program. Although the progress toward meeting the supplemental objectives was not the primary focus of the evaluation, results are provided in Appendix A for informational purposes. It is important to note that grantees determined and self-reported their individual levels of success in meeting objectives not related to student achievement based on their own criteria.

Objective 1: Improve Student Academic Achievement in Reading

When looking at all matched 21st CCLC participants and control group students in grades 3-8, after statistically controlling for student demographic variables, participation in 21st CCLC programs (i.e. "Yes" or "No") had no statistically significant effect on either participants'

reading proficiency levels or standardized SOL reading scaled scores. In addition, the effect sizes for both analyses (Cox Index effect size (CIES) = 0.07 and g = 0.00 respectively) were not substantively important based on What Works Clearinghouse (2011) guidelines (i.e., ≥ +/- 0.25). The effect size (calculated as either the Cox Index for the proficiency analyses or Hedges's g for the standardized SOL scaled score analyses) is a descriptive statistic that provides a measure of the magnitude of the difference between scores[2]. The number of days of participation in 21st CCLC programs was also not a statistically significant predictor of either reading proficiency or standardized scaled score achievement. None of the impacts of participation by subgroup (based on disability status, LEP status, or economically disadvantaged status) were statistically significant. Furthermore, none of the effect sizes for the subgroup proficiency analyses was substantively important, ranging from -0.03 to 0.08 for the proficiency analyses and from -0.10 to 0.04 for the standardized SOL scaled score outcomes. Results of the descriptive analysis of reading outcomes for students in grade three who did not have prior-year test scores available showed that for proficiency outcomes, the percentage of 21st CCLC participants scoring Proficient or Advanced in reading in 2011-2012 was lower than nonparticipants and the Commonwealth overall and for all but two available subgroups (Asian and students with disabilities). In terms of SOL scaled score outcomes, the mean reading SOL scaled score for 21st CCLC participants in 2011-2012 was lower than that of nonparticipants overall and for all but two subgroups (Asian and students with disabilities).

The "Virginia 21st CCLC 2011-2012 Third-grade Descriptive Analysis" section of the Supplemental Technical Report provides details on the participant, nonparticipant, and overall Virginia samples, and also details differences in reading proficiency and mean SOL assessment scaled scores in both 2010-2011 and 2011-2012 for these two different sets of third-grade students. As noted in that section, it is not appropriate to look at changes (either positive or negative) across years in either proficiency or scaled scores between the two third-grade cohorts, as those changes can be misleading since there is essentially no overlap between these two groups. As noted earlier, this report can be requested from the VDOE.

[2] A full discussion of the calculation of the effect sizes can be found in the Supplemental Technical Report.

Objective 2: Improve Student Academic Achievement in Mathematics

When looking at the combination of all matched control group and 21st CCLC participants in grades 3-8, participation in 21st CCLC programs ("Yes" or "No") had a statistically significant negative effect on participants' mathematics proficiency levels, but no statistically significant effect on their standardized SOL mathematics scores, after controlling for student demographic variables. Specifically, control students had just over 1.3 times the odds of scoring proficient in mathematics in 2011-2012 compared to 21st CCLC participants, with a Cox's log odds ratio index effect size of -0.17, which is not substantively important. While not a statistically significant difference, control students had an average standardized mathematics SOL scaled score that was .025 standardized scaled score points higher in 2011-2012, with a non-substantively important effect size of -0.03. The number of days a student participated in 21st CCLC had a small, but statistically significant positive impact only on proficiency outcomes.

For the proficiency analysis, each of the impacts of participation by subgroup (based on disability ("Yes" or "No"), LEP ("Yes" or "No"), and economically disadvantaged status ("Yes" or "No")) were statistically significant and positive. Participants in 21st CCLC outperformed control students in each of the six comparisons, ranging from 1.3 times higher odds of scoring proficient for 21st CCLC students identified as receiving special education services compared to similarly identified control students, to a 4.6 times higher odds of scoring proficient for 21st CCLC non-economically disadvantaged students compared to control non-economically disadvantaged students. All effect sizes except for 21st CCLC students identified as receiving special education services (CIES = 0.15) were "substantively important," ranging from 0.15 to 0.92. For the standardized SOL mathematics scaled score analysis, control students who were not economically disadvantaged statistically significantly outperformed 21st CCLC students who were not economically disadvantaged. The magnitude of the effect was small; however, with control students on average scoring 0.096 standardized scaled score points higher, and an effect size (g = -0.10) that was not substantively important. While not statistically significant, the effect size for the standardized SOL scaled score difference between economically disadvantaged 21st CCLC and control students (g = 0.04) was also not substantively important.

The results of the grade-three-only analyses of proficiency level data showed that the percentage of 21st CCLC participants scoring Proficient or Advanced in mathematics in 2011-

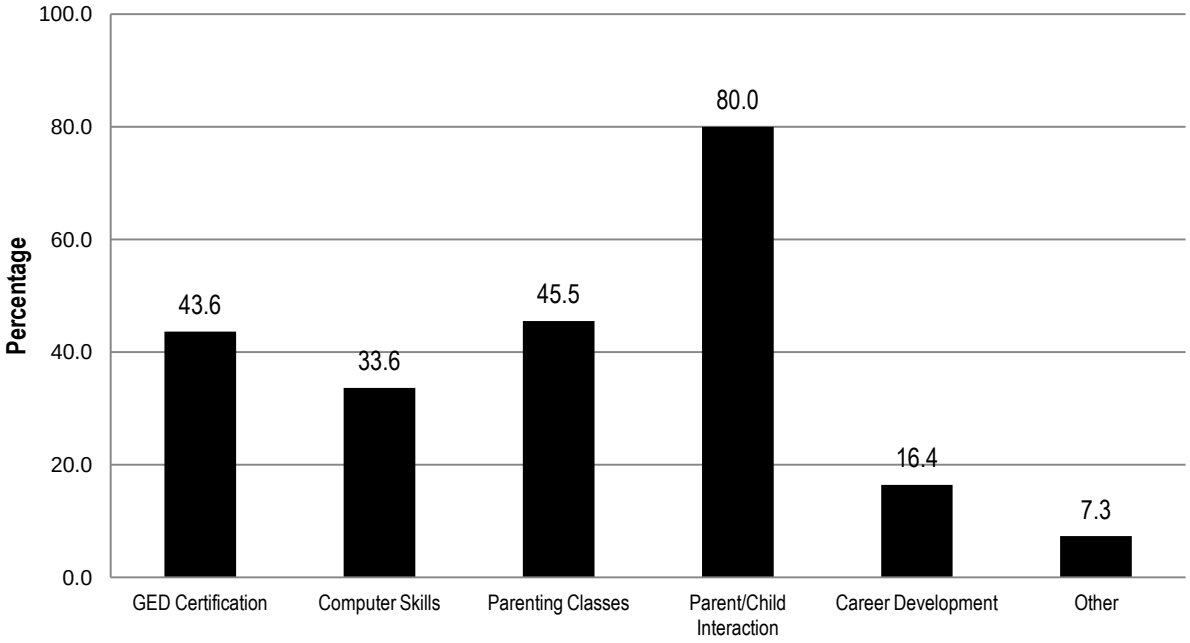
2012 was lower than both nonparticipants and the Commonwealth overall, and for five of the available subgroups. Meanwhile, the percentage of 21st CCLC participants scoring Proficient or Advanced in mathematics in 2011-2012 was higher than both nonparticipants and the Commonwealth for one subgroup (Hispanics). Additionally, the percentage of 21st CCLC participants scoring Proficient or Advanced in mathematics in 2011-2012 was higher than nonparticipants only in three additional subgroups (economically disadvantaged, students with disabilities, and LEP). For SOL scaled score outcomes, the mean mathematics SOL scaled score for 21st CCLC participants in 2011-2012 was lower than that of nonparticipants overall and for half of the subgroups while 21st CCLC participants outperformed nonparticipants in the following subgroups: Hispanic, economically disadvantaged, students with disabilities, and Non-limited English Proficiency.

For the details on the participant, nonparticipant, and overall Virginia samples and for the details of differences in mathematics proficiency and mean SOL scaled scores in both 2010-2011 and 2011-2012 for these two different sets of third-grade students, readers are referred to the "Virginia 21st CCLC Third-grade Descriptive Analysis" section of the Supplemental Technical Report. As noted in that section, it is not appropriate to look at changes (either positive or negative) across years in either proficiency or scaled scores between the two third-grade cohorts, as those changes can be misleading since there is essentially no overlap between these two groups.

Objective 3: Provide Opportunities for Parental Education

Center administrators stated that they provided a variety of activities to meet this objective. Eighty percent of centers in 2011-2012 reported implementing activities that invited parent/child interaction (80 percent), similar to levels reported in 2010-2011 (81.2 percent). Parenting classes were reported as being conducted in almost half (45.5 percent) of the centers, also similar to levels reported in the prior year (45.3 percent). These and other selected parent activities are shown in Figure 6. The most common activities cited by the centers during 2011-2012 are discussed below. It is important to note that grantees determined their own criteria for success in meeting parental education objectives and reported their outcomes accordingly.

Figure 6. Percent of 21st CCLC Selecting Parent Education Subobjectives for 2011-2012

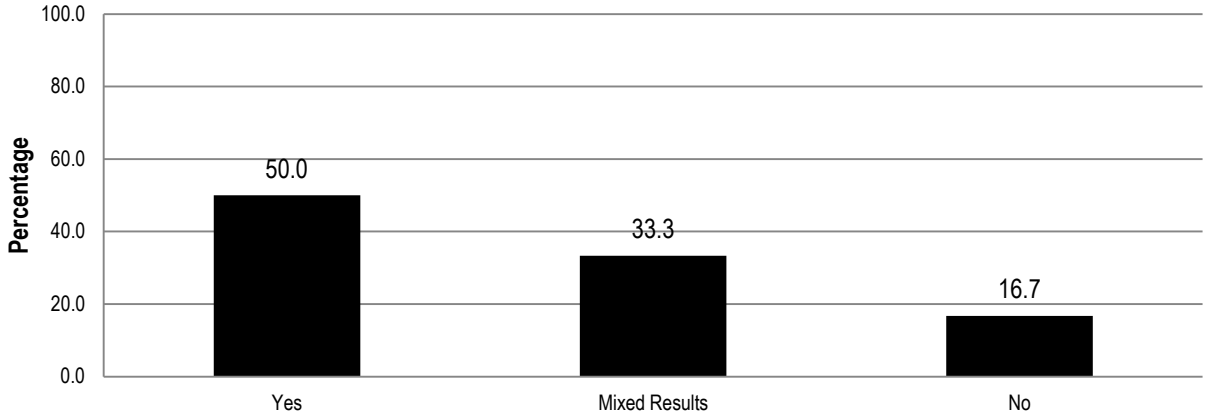


General Education Development

Of those centers providing a General Education Development (GED) certificate program, 66.7 percent reported scheduling the GED certificate program classes at the center, while 41.7 percent reported referring parents to GED certification programs in the community. To determine whether centers had met the GED subobjective by providing a GED certificate program (whether in-house or outside the center), 72.9 percent of centers used an attendance report, while almost three-fifths of centers used the number of certificate recipients (56.3 percent). Figure 7 shows the percentage of centers that reported meeting the GED subobjective. The percentages are based on the number of centers that chose to include the subobjective of "providing a GED certificate program."

One half (50 percent) of the centers providing a GED certificate program reported meeting this subobjective. Some grantees indicated parent reluctance to commit to the GED classes, with attendance declining as the difficulty level increased, while others indicated a lack of response to informational flyers. In a few cases, parents did not take the GED exam because they were still working through the preparatory course, while a few other parents were able to pass the test on their first attempt.

Figure 7. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in GED Certificate Program Classes for 2011-2012

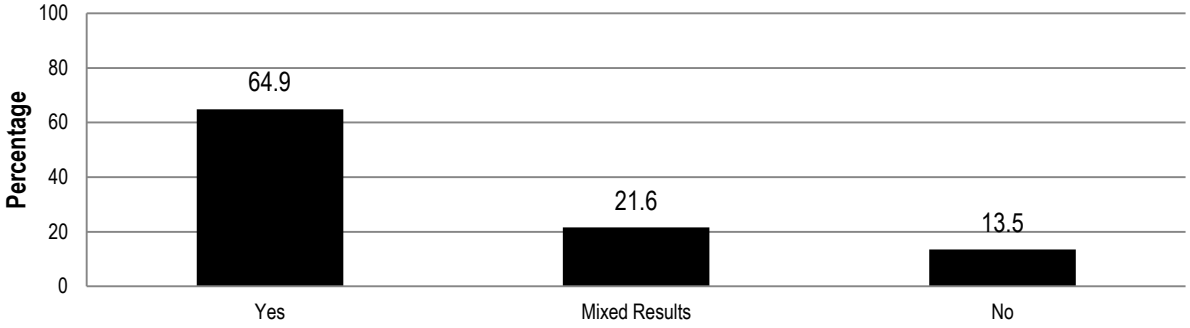


* Centers reporting "Mixed Results" indicated in open-ended remarks that there were difficulties in obtaining the GED test results from providers and that, while some parents demonstrated low commitment to consistently attend the classes, other parents completed the program and obtained their certificates.

Computer Instruction for Parents

Computer skills classes were reported to be offered by 94.6 percent of centers that provided computer usage activities. About one-third of centers reported developing projects integrating computer use for parents and children to complete together (40.5 percent). Other centers (2.7 percent) offered open-use computer labs and technical assistance on accessing school websites and on subscribing to receive resources by email. Centers that provided computer usage activities reported using a variety of measures to determine whether they had met this subobjective, including attendance reports (81.1 percent), records of the numbers of sessions offered (78.4 percent), and pre/post skills assessments (5.4 percent). Several grantees indicated that parents did not attend the computer skills classes, despite having communicated interest and continued outreach efforts. Figure 8 shows the percentage of centers that reported meeting the computer skills subobjective based on the number of centers that chose parent participation in computer skills classes as an objective.

Figure 8. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in Computer Skills Classes for 2011-2012

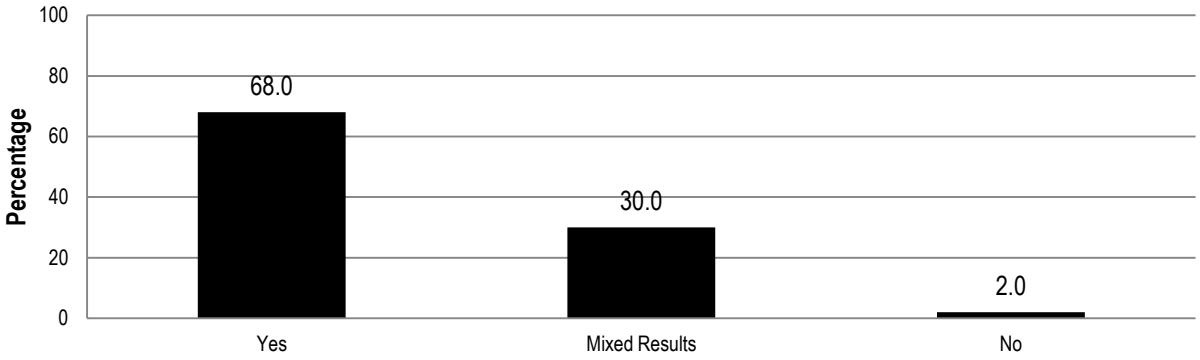


* Centers reporting "Mixed Results" indicated in open-ended remarks that, while computer skills classes were offered and while parent interest was communicated, the classes had low or zero attendance.

Parenting Skills

Parenting skills classes were provided by 84 percent of centers that completed ALERT. The use of community speakers was reported by 54 percent of the centers. Topics offered included getting ready for school, understanding grades, preparing for parent-teacher conferences, homework, study skills, and technology learning tools; family relationship-building, communication, and discipline; substance abuse, bullying, gangs, and social media safety; wellness, nutrition, women's health, and depression awareness; post-secondary education, career planning, and career readiness; and financial literacy. Other centers (14 percent) offered an onsite counselor, informational sessions about the new SOL assessments in mathematics, parent modeling of reading during family night read events, parent lending libraries, and developmental playgroups for parents/caregivers and their toddlers. Centers that offered parenting skills classes reported using a variety of data sources to determine whether they had met this subobjective, including records of the number of sessions offered (84 percent), attendance reports (86 percent), and evaluation forms completed by parents (30 percent). Figure 9 shows the percentage of centers that reported meeting the parenting skills subobjective based on the number of centers that chose parent participation in parent training classes as an objective.

Figure 9. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in Parent Training Classes for 2011-2012

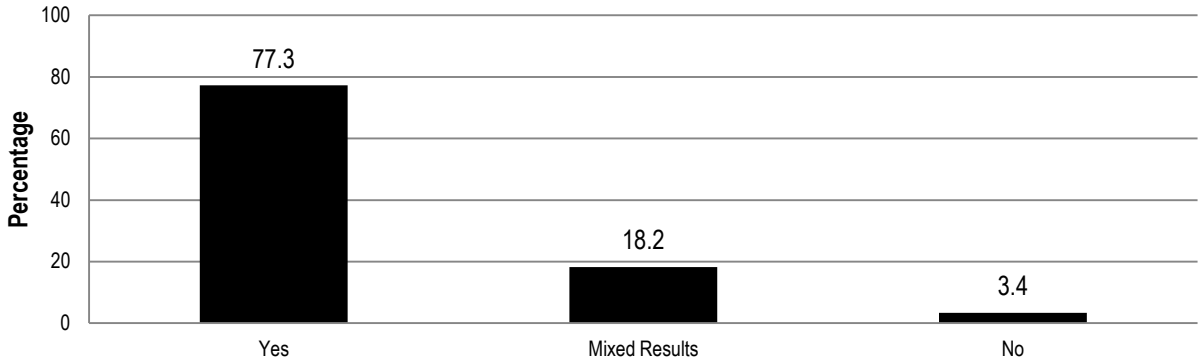


* Centers reporting "Mixed Results" indicated in open-ended remarks that manyparents attended the parent training classes, but only a few participated in them during the entire time that they were offered.

Parent/Child Activities

Opportunities for parent/child interaction in academic activities were offered in 77.3 percent of reporting centers. Most of these centers offered family nights with parent/child activities (95.5 percent), and many held open houses for parents to learn about their children's work (69.3 percent). Some offered parent training in homework help (35.2 percent) or take-home projects for parent/child completion (20.5 percent). Other activities reported included family literacy nights, family SOL nights and lock-ins, college application nights, family food and fitness events, drama events, and bowling. Centers that offered opportunities for parent/child interaction in academic activities reported using a variety of data sources to determine whether they had met this subobjective, including attendance reports (88.6 percent), the number of sessions offered (83 percent of centers), and evaluation forms completed by parents (25 percent). Figure 10 shows the percentage of centers that reported meeting the parent/child interaction in academic activities subobjective based on the number of centers that chose parent/child interaction in academic activities as an objective.

Figure 10. Percent of 21st CCLC Reporting Meeting the Objective for Parent/Child Interaction in Academic Activities for 2011-2012

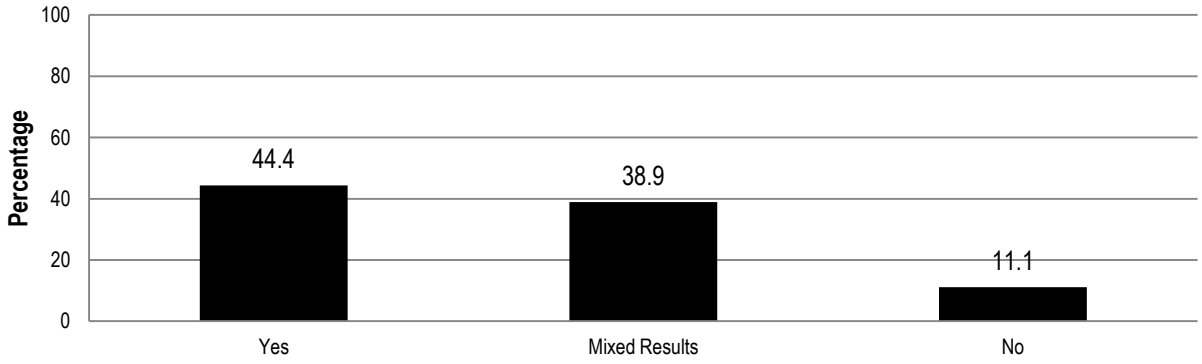


* Centers reporting "Mixed Results" indicated in open-ended remarks that, while the centers offered many opportunities for parent involvement, participation levels were lower than desired. Challenges in reaching desired participation levels included parent work schedules and the limited availability of public transportation.

Career Development for Parents

Parent career development was selected as a subobjective by 14.3 percent of the reporting centers. The centers that addressed this area most frequently offered career exploration classes (55.6 percent) and job application assistance sessions (38.9 percent). Centers that reported career development as a subobjective used a variety of data sources to determine whether they had met this subobjective, including records of the number of sessions offered (77.8 percent), attendance reports (77.8 percent), evaluation forms completed by parents (11.1 percent), and other sources (11.1 percent), including feedback from students to counselors. Figure 11 shows the percentage of centers that reported meeting the career development subobjective based on the number of centers that chose parent participation in career development activities as a subobjective.

Figure 11. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in Career Development Activities for 2011-2012



* Centers reporting "Mixed Results" indicated in open-ended remarks that, while parents expressed interest in career development activities, few registered for and attended them.

Table 2 shows the comparative success that centers reported having in meeting parent education subobjectives. It is important to note that grantees determined their own criteria for success in meeting parental education objectives and reported their outcomes accordingly.

Table 2. Percentage of Centers Meeting Parent Education Subobjectives in 2011-2012

Subobjective	Offered (percent)*	Met (percent)*	Mixed Results (percent)*	Did Not Meet (percent)*
General Education Development	43.6	50.0	33.3	16.7
Computer Skills Instruction	33.6	64.9	21.6	13.5
Parent Training	45.5	68.0	30.0	2.0
Parent/Child Interaction Activities	80.0	77.3	18.2	3.4
Career Development	16.4	44.4	38.9	11.1

*****Percentages may not add up to 100 percent because some centers did not respond to this item.

Associations between Center Characteristics and Outcomes

This section of the evaluation includes the results of statistical analyses of associations between various categories of center-level data and reading and mathematics outcomes of students in grades 3-8 with two years of assessment data available. These analyses provide information that may be useful to program leaders and are summarized below.

For each of the past five analysis years (2007-2008 to 2011-2012), there has been a decrease in the total number of unique activities that the centers have offered. Both the mean (i.e., average) number of unique activities and the total number of providers have fluctuated over the past five years, but have had an overall downward trend as well. The 2007-2008 year had the highest total number of unique activities, the highest mean number of activities, and the second largest number of providers. The 2008-2009 year had the largest number of providers and the second highest total number of unique activities, but the smallest mean number of activities. The 2011-2012 year had the lowest total number of unique activities, the smallest mean number of activities, as well as the lowest number of providers. The "Results for Grades 3–8" section of the separate Supplemental Technical Report provides more detailed, statistically oriented findings on the center-level outcomes.

The association between center characteristics and reading achievement

The number of days of participation in 21st CCLC was not shown to be a statistically significant predictor of either reading proficiency level or standardized reading SOL scaled score outcomes. In the full model, only one of the center-level variables, number of paid school-day teachers, was a statistically significant and positive predictor, both for reading proficiency and standardized reading SOL scaled scores, but the impact was small. For each paid school-day teacher added, there could be an expected increase of .005 standardized SOL scaled score points in reading, and a two percent increase in the odds of scoring proficient in reading. The total number of hours of activities at centers and the percent of center activities that were academic each had a negative, but very small and non-statistically significant impact on students' reading outcomes in 2011-2012. The number of hours centers were open had small, positive, and non-statistically significant impacts on reading outcomes. Meanwhile the number of unique activities also had small and non-statistically significant impacts, but was negative for reading proficiency and positive for standardized SOL reading scaled scores.

In a separate set of analyses for students with one or more days of attendance in 21st CCLC, there was a statistically significant negative correlation between days attended and 2011-2012 reading z-scores, with more days of attendance being associated with a decrease in the standardized reading SOL scaled score, although the magnitude of the relationship (r = -0.44) was moderate. There was no statistically significant relationship between days of attendance and 2011-2012 z-scores in reading for students with 30 or more days of attendance (r = -0.017), but the relationship again was negative.

The association between center characteristics and mathematics achievement

The number of days attended was not shown to be a statistically significant predictor of mathematics proficiency level or standardized mathematics SOL scaled score outcomes. Two center-level variables, total hours open and percent of activities that were academic, were statistically significant predictors of both mathematics proficiency and standardized mathematics SOL scaled score outcomes in 2011-2012. However, the impact for each was very small. For each additional hour open, there was a .005 increase in standardized mathematics SOL scaled scores and a one percent increase in the odds of scoring proficient in mathematics. On the other hand, for each additional increase in the percent of activities that were academic, there was a .003 decrease in standardized mathematics SOL scaled score outcomes, and one percent decrease

in the odds of scoring proficient. For the proficiency analysis only, the number of paid school-day teachers was statistically significant, but with a small impact: each additional paid school-day teacher added was associated with a two percent increase in the odds of scoring proficient in mathematics 2011-2012. Finally, neither the total hours of activities nor the total number of unique activities had a statistically significant impact on either mathematics proficiency level or standardized SOL mathematics scaled scores in 2011-2012.

In addition, there was no statistically significant correlation between days attended in 21st CCLC and 2011-2012 z-scores in mathematics for either those with one or more days of attendance (r = -0.015) or with 30 or more days of attendance (r = 0.011). The "Results for Grades 3–8" section of the separate Supplemental Technical Report provides more detailed, statistically oriented findings on the center-level outcomes.

Promising Practices and Challenges

As part of the self-reporting information provided in ALERT, grantees were asked to provide comments regarding activities they felt were most effective in helping them to meet program objectives, factors that could have been associated with lower results for objectives not met or showing mixed results, and recommendations they might have for improving the program in their centers in the future. From these comments, several themes emerged, indicating promising practices and challenges faced by the centers. These themes are summarized below by category.

Promising Practices

Grantees were asked to elaborate upon their centers' objectives that were met and the activities or promising practices that appeared to be most effective in helping them to meet these objectives. Major themes appearing in grantees' responses included the following: providing time for academic assistance in core content areas, providing a variety of engaging enrichment activities, maintaining strong relationships with families through services and communication, providing an environment conducive to learning, supporting high-quality afterschool staff that maintains strong linkages with the school-day staff and curricula, and maintaining strong relationships and partnerships with community members. These promising practices are each described in further detail below.

Providing time for academic assistance in core content areas

Many grantees attributed improvements in student academic achievement with programs featuring academic assistance, provided before or after school. Components of programs that were perceived to be particularly strong included tutoring, homework help, and individualized instruction. Grantees emphasized the importance of providing daily and structured time for strategic tutoring and homework help that is tailored to individual student academic needs. In addition to providing academic assistance, several grantees reported success with literacy programs, particularly those incorporating reading tutors or book buddies, creative literacy activities or literacy centers, and high-quality and engaging books.

Overall, grantees representing a total of 73 sites reported meeting their objectives for improving student academic achievement. Among these, objectives were met for improving SOL scores in reading at 38 sites and in mathematics at 23 sites. At 22 sites, grantees indicated improvements in student academic achievement but did not provide more specific information. Similarly, at seven sites, grantees indicated general improvements in SOL scores in core subject areas. Improvements in course grades were noted in core subject areas at seven sites, and improvements in reading grades were noted at five sites. Other reported improvements related to student academic achievement included grade retention, PALS scores, SOL scores in mathematics for students with disabilities, course grades in mathematics, SOL scores in reading for students with disabilities, SOL scores in social studies, general academic outcomes for students with disabilities, on-time graduation, conceptual understanding, end-of-course scores, and SOL scores in science.

Providing a variety of engaging enrichment activities

Grantees reported providing a wide variety of engaging academic, cultural, physical, and social enrichment activities at their centers, in order to appeal to the broad range in student needs and interests. The most frequently cited components of successful academic enrichment classes included hands-on learning, high-yield learning activities, non-traditional instruction, project-based learning, and scientifically-based programs. Academic enrichment was also often embedded in interactive games and other recreational activities. The most frequently cited non-academic enrichment activities included social training programs in anger management, character education, responsibility, social communication, and team building; fitness activities,

such as basketball, bowling, swimming, intramural sports, and other team sports; and health and nutrition classes. Other grantees reported incorporating problem-solving and real-life application of core content area skills, integrating technology, participating in competitive mathematics events, emphasizing creativity and imagination, and exposing students to music and the arts.

Overall, grantees representing a total of 49 sites reported meeting their objectives for providing academic, cultural, recreational, and health/wellness enrichment opportunities. Among these, grantees at 38 sites indicated meeting their objectives for providing enrichment activities. Grantees at nine sites reported meeting their objectives for providing health and fitness activities and achieving related outcome goals. At four sites, grantees reported extending their academic enrichment activities through a successful summer program. Other reported activities included STEM projects, service learning, technology, and providing structured afterschool time with nutritious snacks.

Maintaining strong relationships with families through services and communication

Grantees reported providing a variety of services and activities to meet the needs and interests of families. Several grantees cited the popularity of family night events, including those that were focused on reading, mathematics, and fitness activities with opportunities for interaction with students. Some grantees reported that it was helpful to provide Spanish language translation services for students and families regarding college information, GED classes in Spanish, classes on English for the work setting, and translation services for other program material. Other grantees reported the success of parenting workshops that focused on a variety of topics that supported the children's education. A number of grantees reported that parents were supportive of the program and were coming to the school as a result of the parenting classes, showcases, family nights, and other family events.

Grantees also discussed the importance of building and maintaining strong relationships with families through open, clear, and consistent communication between center staff, school staff, students, and parents. A few grantees reported using surveys to collect feedback from parents regarding their needs and interests. A few other grantees reported using agenda books as a communication tool between parents, tutors, and teachers.

Overall, grantees representing a total of 53 sites reported meeting their objectives for providing services that improve parent and family involvement in education, training, and

interactive family activities. Among these, grantees at 34 sites indicated meeting their objectives for involvement in interactive family activities. Grantees at 31 sites indicated meeting their objectives for parent involvement in education and training opportunities.

Supporting high-quality afterschool staff that maintains strong linkages with the school-day staff and curricula

Staff practices reported to contribute to the success of center objectives included open, regular, and consistent communication and collaboration with school staff and regular meetings with other center staff. A few grantees also reported making sure that the afterschool program was aligned with school-day practices, through classroom observations and other activities. Other grantees reported supporting the afterschool instructional staff with high-quality manipulatives and other materials, with professional development in technology integration and core content areas, and teacher autonomy backed by strong resources "to allow teacher creativity and experience to shine." Grantees representing ten sites reported meeting their objectives for providing professional development.

A number of grantees described qualities in their afterschool and school-day staff that strengthened their afterschool programs. Several grantees reported using regular school-day classroom instructors as afterschool and summer tutors. One grantee reported using afterschool tutors during the regular school day. Afterschool tutors were described as being highly qualified instructors, who took a personal interest in each child and served as positive adult role models for students.

Providing an environment conducive to learning

Components of the afterschool environment that were conducive to student learning included small-group settings and small class sizes, program scheduling that was responsive to student and family needs, one-on-one tutoring, behavior contracts or policies, and strategic placement of students at homework tables and with tutors. Several grantees described their approach as being thoughtful and holistic, with the aims of creating a learning culture and a place of belonging. A number of grantees also reported success with using incentives for student attendance, behavior, and course performance. Incentives included field trips, participation in club and sports activities, special dinners, and points-based programs.

Overall, grantees representing a total of 52 sites reported meeting their objectives for improving student behaviors and choices. Among these, grantees at 36 sites indicated meeting their objectives for improving student behaviors, as evidenced by reductions in discipline referrals. Grantees at nine sites indicated meeting their objectives for improving school-day attendance and other classroom behaviors, and grantees at four sites indicated meeting their objectives for character development and drug/gang prevention.

Maintaining strong relationships and partnerships with community members

Overall, grantees representing a total of 24 sites reported meeting their objectives for improving their community partnerships. A number of grantees reported having "outstanding" community partnerships, in terms of the quality and relevance of the services that they provided to the families that they served. Several grantees described the willingness of their partners and of other entities within the surrounding community to work together to maximize resources. Other grantees reported success with using community volunteers during homework time and as mentors and reading tutors.

Challenges

Grantees were asked to reflect upon their centers' objectives that were not met or showed mixed results and to identify challenges that might have been associated with the lower results. Major challenges appearing in grantees' responses included the following: conditions within families and the local community; program alignment and planning; staffing, scheduling, and other logistics of program implementation; academic, behavioral, and other student factors; and communication with stakeholders. These challenges are each described in further detail below.

Conditions within families and the local community

Similar to prior years, the predominant challenge reported in 2011-2012 concerned low or inconsistent parent involvement, particularly in GED and parent training programs. Childcare responsibilities, conflicting work schedules, and lack of transportation were the major reasons cited for low parent attendance. One grantee posited that parents were simply unaccustomed to attending non-sporting events, while others described feelings of embarrassment, intimidation, or apprehension that prevented some parents from attending the GED classes and other program

activities. A few grantees indicated a perception of a lack of parent motivation to become more involved in the program.

Grantees also described characteristics of the communities served by their centers as posing challenges for their programs. Centers were described as being located in neighborhoods known for having high rates of poverty. A few grantees indicated that the rural location of their centers and feeder schools presented a challenge with regard to the distance that students, parents, and staff had to travel.

A few grantees described conditions within the families served by their centers as posing challenges for their students. Grantees reported serving a high number of single-parent families, with students returning home from school to empty houses. Grantees also reported serving a high population of families with low English-speaking and literacy skills.

Program alignment and planning

Many grantees indicated that difficulties in meeting their objectives for student achievement in 2011-2012 would be mitigated once they improved their programs' alignment with the increased rigor of the new mathematics SOL objectives and state assessment, while other grantees indicated that improvements were needed in aligning remediation with the specific needs of students served at their centers. Still other grantees indicated difficulties with accessing and developing resources for families. Some grantees indicated a need to increase the number and appeal of program activities for parents, for students, and for families. Other grantees indicated that planning of instruction and planning for activities could be done earlier and better. A few grantees indicated that they would like to increase student enrollment, particularly of students with disciplinary issues and those who are gifted and talented.

Staffing, scheduling, and other logistics of program implementation

Many grantees also indicated that they had challenges related to scheduling, staffing, and other logistics of program implementation during 2011-2012. Afterschool programs competed with sports, clubs, and other extracurricular activities for both student and parent attendance, particularly during the spring. Parents also had other scheduling conflicts, such as work and other family obligations, which made it difficult for them to commit time to parent education and training classes. Some centers had difficulty maintaining sufficient instructional and support

staffing, and a few grantees indicated that there had been changes in their teaching or administrative staff mid-year.

Academic, behavioral, and other student factors

Several grantees indicated that they had challenges related to student attendance, student academic performance, and student behavior. Maintaining regular student attendance was particularly challenging at the high school level. Difficulties with higher-order, problem-solving, and literacy tasks made it difficult for some students to complete homework assignments without substantial support. Several grantees also reported a high number of students with limited English proficiency. At a few centers, student behavior or student motivation also presented challenges.

Communication with stakeholders

The least frequently reported challenge for grantees in 2011-2012 was related to communicating with school staff, parents, or partners. Several grantees indicated a need for more communication with school staff and teachers, and a few grantees expressed the desire for increased investment of school staff and teachers in the afterschool program. A few other grantees reported having difficulty reaching parents and maintaining regular contact with them, due to challenges related to building parent trust and rapport, teenage assertion of independence, relevance and clarity of communications, or changes in contact information that were not relayed to centers.

Conclusions

Objective 1: Improve Student Academic Achievement in Reading

Based on the statistical analyses for grades 3-8 that included two years of test data, participation in the 21st CCLC program was not a statistically significant predictor of reading achievement outcomes based on either proficiency levels or standardized SOL scaled scores. The number of days participated was also not a statistically significant predictor of reading outcomes. In addition, there were no statistically significant effects of participation in 21st

CCLC in reading for any of the three subgroups analyzed (based on disability, LEP, or economically disadvantaged status).

It should be noted that the predictor variables included in the statistical analyses could not explain all of the variance (i.e., variability) in reading achievement. In other words, additional variables not included in these models (e.g., student motivation, parental involvement) could be accounting for some of the variability in reading achievement.

Results of the descriptive analyses of outcomes for students in grade three who did not have prior-year test scores available showed that the percentage of 21st CCLC participants scoring Proficient or Advanced in reading, overall, was lower than nonparticipants and the Commonwealth in 2011-2012. In terms of SOL reading scaled score outcomes in 2011-2012, 21st CCLC participants overall had a lower mean than nonparticipants.

Objective 2: Improve Student Academic Achievement in Mathematics

Based on the statistical analyses for grades 3-8 that included two years of test data, participation in the 21st CCLC programs was a small, but statistically significant negative predictor of mathematics proficiency level achievement, but was not a statistically significant predictor of standardized SOL scaled score outcomes. An increase in the number of days of participation in 21st CCLC programs had a small, yet statistically significant and positive impact on mathematics proficiency level achievement, but was not statistically significant for standardized SOL scaled scores. It should be noted that in the spring of 2012, all schools in Virginia took new rigorous mathematics assessments that were based on the revised mathematics Standards of Learning (SOL) approved by the Board of Education in 2009, which included new content and the increased rigor of the 2009 standards, and which could have affect the mathematics achievement outcomes. For all three subgroups examined, 21st CCLC participants had statistically significantly higher odds of scoring proficient compared to controls, while control students who were not economically disadvantaged had statistically significantly higher standardized SOL mathematics scaled scores.

However, it should be noted that the predictor variables included in the statistical analyses did not explain all of the variance in mathematics achievement. Additional variables not included in these models could be accounting for some of the variability in mathematics achievement.

Results of the descriptive analyses of outcomes for students in grade three who did not have prior-year test scores available showed that the percentage of 21st CCLC participants scoring Proficient or Advanced in mathematics, overall, was lower than nonparticipants and the Commonwealth in 2011-2012. In terms of SOL mathematics scaled score outcomes in 2011-2012, 21st CCLC participants overall had a lower mean than nonparticipants.

In what ways do attendance at a 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?

The results suggest that more paid school-day teachers had small, yet statistically significant and positive impacts on reading achievement outcomes (both proficiency and standardized SOL scaled scores) and mathematics proficiency outcomes. Also, an increase in the number of hours a center was open had a small, but statistically significant and positive impact on mathematics achievement outcomes, while the percent of center activities that were identified as academic had a small, but statistically significant and negative impact on mathematics achievement outcomes. It should be noted that the number of academic activities was created by evaluating the name of each activity to determine if the focus was academic or something other than academic. The best effort was made to categorize the activity based on the activity name, but the categories were not confirmed with the centers.

It should be noted that the predictor variables included in the statistical analyses did not explain all of the variance in reading or mathematics achievement. Additional variables not included in these models could be accounting for some of the variability in achievement.

Readers should also note that due to differences in the statistical methodology used for the achievement analyses for the current report, results from the statistical analyses should not be compared to statistical outcomes from previous years.

Objective 3: Provide Opportunities for Parent Education

As required by the 21st CCLC grant, centers offered General Education Development (GED) certificate programs, computer instruction, parenting skills classes, parent/child activities, and/or career development activities for parents. Over three-quarters of centers offering opportunities for parent/child interaction in academic activities reported having met their internally established subobjectives. About two-thirds of centers offering computer skills instruction and a similar proportion of centers offering parent training reported having met their

internally established subobjectives. One half of centers offering GED certificate programs and almost one half of centers offering career development activities reported having met their internally established subobjectives.

Appendix A: Supplemental Program Objectives

In addition to the state mandated 21st CCLC program objectives, some grantees chose supplemental objectives as part of their center activities. This appendix provides information on the percentage of centers choosing each supplemental objective and the success centers reported in meeting these objectives.

Objective: Improvement of Student Behavior

The objective for improving student behavior was selected by 65.6 percent of centers that completed the ALERT. The percentage of centers selecting various subobjectives for this objective is shown in Table A-1. Success of the reporting centers in meeting these subobjectives is shown in Table A-2. Please note that grantees determined and self-reported their individual levels of success in meeting student behavior objectives based on their own criteria.

Table A-1. Percentage of Centers Selecting Subobjectives for Improving Student Behavior in 2011-2012

Subobjective	Percentage of Centers Selecting
Improve classroom behavior	90.2
Complete homework satisfactorily	84.1
Improve classroom participation	73.2
Improve class attendance	65.9
Improve motivation to learn	68.3
Improve ability to get along with other students	69.5
Other	0.0

Table A-2. Percentages of Success by Reporting Centers in Meeting Subobjectives for Improving Student Behavior in 2011-2012

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Improve classroom behavior	60.8	37.8	1.4
Complete homework satisfactorily	79.7	20.3	0.0
Improve classroom participation	65.0	35.0	0.0
Improve class attendance	53.7	38.9	5.6
Improve motivation to learn	75.0	25.0	0.0
Improve ability to get along with other students	66.7	31.6	1.8

Objective: Provide Enrichment Opportunities

The objective for providing enrichment opportunities was selected by 89.6 percent of centers that completed the ALERT. The percentage of centers selecting various subobjectives for this objective is shown in Table A-3. Success of the reporting centers in meeting these subobjectives is shown in Table A-4. Please note that grantees determined and self-reported their individual levels of success in meeting enrichment opportunity objectives, based on their own criteria.

Table A-3. Percentage of Centers Selecting Subobjectives for Providing Enrichment Opportunities in 2011-2012

Subobjective	Percentage of Centers Selecting
Increase children's exposure to the fine arts and cultural events	75.9
Increase children's depth of understanding of academic subjects through nontraditional instruction	75.0
Increase children's health awareness and physical education	83.0
Provide programs in preventing drug/alcohol use and/or violence	45.5
Other	0.9

Table A-4. Percentages of Success by Reporting Centers in Meeting Subobjectives for Providing Enrichment Opportunities in 2011-2012

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Increase children's exposure to the fine arts and cultural events	92.9	7.1	0.1
Increase children's depth of understanding of academic subjects through nontraditional instruction	88.1	9.5	0.0
Increase children's health awareness and physical education	86.0	10.8	0.0
Provide programs in preventing drug/alcohol use and/or violence	90.2	9.8	0.0

Objective: Improve Community Partnerships

The objective for improving community partnerships was selected by 58.4 percent of centers that completed the ALERT. The percentage of centers selecting various subobjectives for this objective is shown in Table A-5. Success of the reporting centers in meeting these subobjectives is shown in Table A-6. Please note that grantees determined and self-reported their individual levels of success in meeting community partnership objectives, based on their own criteria.

Table A-5. Percentage of Centers Selecting Subobjectives for Improving Community Partnerships in 2011-2012

Subobjective	Percentage of Centers Selecting
Increase the number of partners	46.6
Increase the activities of partners	71.2
Improve communication with partners	63.0
Improve the sustainability of the program through partner commitments beyond the grant period	46.6
Other	0.0

Table A-6. Percentages of Success by Reporting Centers in Meeting Subobjectives for Improving Community Partnerships in 2011-2012

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Increase the number of partners	88.2	0.0	11.8
Increase the activities of partners	78.8	13.5	5.8
Improve communication with partners	80.4	10.9	8.7
Improve the sustainability of the program through partner commitments beyond the grant period	55.9	32.4	11.8